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SHORT COMMUNICATION

Removal of six phrase names from the census of Western Australian vascular plants

Six phrase-named taxa currently listed on the census of Western Australian vascular plants (Western Australian Herbarium 1998–) were reassessed and found to be synonymous with previously described taxa. This article formally states the synonymy and provides justification for our conclusions.

Dampiera sp. **Central Wheatbelt (L.W. Sage, F. Hort, C.A. Hollister LWS 2321) = *Dampiera glabrescens*** Benth.

Notes. *Dampiera* sp. Central Wheatbelt (L.W. Sage, F. Hort, C.A. Hollister LWS 2321) was added to the census in October 1999. In the absence of contemporary documentation detailing the morphological basis for its recognition, it is not known with what species the putatively new taxon was compared by its proponent, in order to determine that it was distinct. It is therefore now a matter of speculation whether *D. glabrescens* Benth. was among those species considered during that process. However, because of an apparent error in the key to *Dampiera* R.Br. in *Flora of Australia* (Rajput & Carolin 1992), it seems quite possible that it was indeed overlooked.

In preparing their account of *Dampiera* Rajput and Carolin (1992) apparently saw little material of *D. glabrescens*. They cited just two collections and only annotated a single specimen (*K.R. Newbey* 2002) at the Western Australian Herbarium (PERTH). This may have contributed to what appears to be the erroneous placement of *D. glabrescens* in Group 3 (one of eight artificial groups recognised by the authors) rather than in either Group 6 or Group 7. Group 3 is defined by the following character combination: leaves cauline; ovary/fruit non-gibbous; young stems triangular, compressed, flattened or with two narrow grooves. From the species description and placement in the key it is clear that the authors included *D. glabrescens* in this group because they believed the young stems to be triangular. However, an examination of PERTH's current holding of *D. glabrescens* (including *K.R. Newbey* 2002) indicates that the stems are never triangular. Rather they are invariably 4-ribbed when young (i.e. quadrangular or slightly compressed-quadrangular in section), usually becoming 5- or more ribbed on older stems. This stem morphology, combined with flat leaves that are more or less glabrous, or with a few hairs on the lower surfaces, would place *D. glabrescens* in either Group 6 or Group 7. It seems likely therefore that the specimens originally assigned to *D.* sp. Central Wheatbelt were compared only with species in these two groups, rather than Group 3, and hence their true identity was overlooked.

Our comparison of the critical morphological features of *D.* sp. Central Wheatbelt and *D. glabrescens* revealed no differences that support the retention of the phrase name. Furthermore, the distribution of *D.* sp. Central Wheatbelt lies entirely within the known distribution of the geographically restricted *D. glabrescens*. Accordingly it is herein synonymised under *D. glabrescens*.

Dampiera sp. Central Wheatbelt is currently listed as Priority One under Department of Parks and Wildlife Conservation Codes for Western Australian Flora (Jones 2015) and should be removed from the *Threatened and Priority Flora list for Western Australia*. The transfer of the two specimens that

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had been assigned to this phrase name to *D. glabrescens* does not materially change the distribution of that species or require a change to its current Priority One conservation status (M. Smith pers. comm.).

Goodenia sp. **Little Sandy Desert (A.S. Mitchell 989)** = ***Goodenia iyouta*** Carolin

Notes. *Goodenia* sp. Little Sandy Desert (A.S. Mitchell 989) was added to the census in August 1999. In the absence of any contemporary documentation of the morphological basis for its recognition, it is not known with what species it had been compared by its proponent.

Goodenia iyouta Carolin was placed by Carolin (1992) in the large *Ebracteolatae* K.Krause subsection of section *Goodenia*. It is a relatively distinctive species distinguishable by the following combination of characters: a prostrate habit; a dimorphic vegetative indumentum of long, patent non-glandular hairs and shorter, pale-headed glandular hairs; conspicuously petiolate and strongly dentate leaves; dentate abaxial corolla lobes; an indusium that is ovate to broadly ovate in outline. Specimens assigned to *G.* sp. Little Sandy Desert possess all of these characters while apparently having no other morphological features by which they might be distinguished from *G. iyouta*. Recent cpDNA molecular evidence also does not support *G.* sp. Little Sandy Desert as being genetically distinct from *G. iyouta* (K.A. Shepherd *et al.*, unpubl. data). Furthermore, the collection localities of specimens assigned to *G.* sp. Little Sandy Desert are within the distribution of *G. iyouta*. The name *G.* sp. Little Sandy Desert is therefore herein placed in synonymy under *G. iyouta*.

Goodenia iyouta is much better known now than when it was first recognised (Carolin 1980) and it is not considered to be under conservation threat. Its main centre of distribution is the Gibson Desert bioregion (Department of the Environment 2013) with lesser occurrences in the Little Sandy Desert, Great Sandy Desert and Gascoyne bioregions. It is noteworthy however, that as far as is known, it does not occur in the Pilbara. Carolin's (1992) inclusion of that region within the species' distribution was based on a misidentification of a specimen of *G. forrestii* F.Muell. (*A.S. George* 3420).

Leucopogon sp. **Boyagin (M. Hislop 2825)** = ***Leucopogon cordatus*** Sond.

Notes. *Leucopogon* sp. Boyagin (M. Hislop 2825) was added to the census in July 2004. It was then considered to represent a new taxon from what was later referred to as the *L. pulchellus* Sond. group or Group C (Hislop & Chapman 2007). Subsequent examination of type material of *L. cordatus* Sond. (MEL 75807) has revealed that specimens assigned to *L.* sp. Boyagin are referable to *L. cordatus* in the strict sense. *Leucopogon* sp. Boyagin is therefore herein synonymised under that species.

The taxonomic status of the entity that had been hitherto treated as *L. cordatus* at PERTH is still under review but it is likely that it will need to be accommodated by a new name. For the time being these specimens are referred to as *L. cordatus s. lat.*, and housed separately from collections of *L. cordatus s. str.*

Leucopogon cordatus s. str. occurs in the Jarrah Forest bioregion (Department of the Environment 2013) and in the adjoining part of the neighbouring Avon Wheatbelt bioregion. It is not of conservation concern at this stage.

Philotheca sp. **Bremer Range (E. Adams EA 659)** = ***Philotheca gardneri*** (Paul G.Wilson) Paul G.Wilson

Notes. *Philotheca* sp. Bremer Range (E. Adams EA 659) was installed on the census in December 2013 as a presumed unnamed taxon restricted to the Bremer Range. It is now regarded as an atypical variant of *P. gardneri* (Paul G.Wilson) Paul G.Wilson and is therefore treated herein as a synonym under that name.

A characteristic feature of *P. gardneri*, along with a number of other species from the genus, is the presence of black stipules or stipular excrescences. In the latest key to species (Wilson 2013) the absence or presence of this feature is employed as a stand-alone character in higher level couplets; however, in *P. gardneri* at least, this character is variably expressed. While in some specimens black stipular excrescences are readily observable throughout, in others they are present only at a minority of leaf axils. In collections from the Bremer Range the feature is altogether absent. A comparison of other critical characters has revealed no other correlating differences.

Specimens previously assigned to *P.* sp. Bremer Range have therefore been re-determined as *P. gardneri* and are housed at PERTH in their own folder and referred to 'the Bremer Range variant'. Although these specimens have not been assigned to subspecies, the length and shape of their leaves match those of the widespread, typical subspecies rather than of subsp. *globosa* Paul G.Wilson, which is currently listed as Priority One under Department of Parks and Wildlife Conservation Codes for Western Australian Flora (Jones 2015).

Senna sp. **Millstream (E. Leyland s.n. 30/8/1990)** = ***Senna artemisioides*** subsp. ***oligophylla*** (F.Muell.) Randell

Notes. *Senna* sp. Millstream (E. Leyland s.n. 30/8/1990) was added to the census in December 2001 on the strength of information provided by the late C.W.E. (Ted) Moore. The Canberra-based Moore worked on the taxonomy of the genus during the 1990s and obtained a loan from PERTH during that period. However, his research did not lead to any publications before, or subsequent to, his death in 2003.

In notes attached to the voucher specimen for this phrase name, Moore expressed the view that it represented an unrecognised taxon close to *S. ferraria* (Symon) Randell. The only character difference that he gave in support of this proposition was that while *S. ferraria* has ten fertile stamens (in common with the great majority of species), in the *E. Leyland* specimen there are only seven. However, a recent check of two flowers from this specimen revealed ten stamens in both. When the specimen was run through the key to species in *Flora of Australia* (Randell & Barlow 1998), it keyed to the very variable *S. artemisioides* subsp. *oligophylla* (F.Muell.) Randell (as *S.* form taxon '*oligophylla*'). Further comparisons between the morphology of the Leyland collection and the description of *S. artemisioides* subsp. *oligophylla* found no differences, other than it having rather broader than usual leaves (15–35 mm *cf.* 10–20 mm, as given in the description). There are, however, many specimens of *S. artemisioides* subsp. *oligophylla* at PERTH with leaf widths greater than 20 mm.

Senna sp. Millstream, which is currently listed as Priority One under Department of Parks and Wildlife Conservation Codes for Western Australian Flora (Jones 2015), is herein synonymised under *S. artemisioides* subsp. *oligophylla* and should be removed from the *Threatened and Priority Flora list for Western Australia*.

Senna artemisioides subsp. *oligophylla* is widespread throughout central and northern Australia and is not considered to be of conservation concern.

Scaevola sp. **Lake Cairlocup (K. Newbey 9834) = Velleia exigua** (F.Muell.) Carolin

Notes. *Scaevola* sp. Lake Cairlocup (K. Newbey 9834) was added to the census in March 2000 without documentation of the morphological basis for its recognition. It now seems probable that the proponent of the new taxon did not fully consider an identity for *K. Newbey* 9834 outside of the genus *Scaevola* L.

Velleia exigua (F.Muell.) Carolin is a distinctive and poorly known species from the Esperance Plains and far south of the Avon Wheatbelt bioregions (Department of the Environment 2013), that is very dissimilar morphologically from other members of its genus. It is characterised by a rhizomatous, tufted growth habit, more or less succulent, narrowly obovoid leaves with mucronate apices, and a habitat preference for the margins of saline water bodies. Other notable features are its narrow, fleshy and mucronate sepals and obloid indusium. *K. Newbey* 9834 possesses all of these features, and in the apparent absence of any other morphological differences there is no longer any reason to maintain it as a distinct taxon.

Scaevola sp. Lake Cairlocup, which is currently listed as Priority Two under Department of Parks and Wildlife Conservation Codes for Western Australian Flora (Jones 2015), is herein synonymised under *V. exigua* and should be removed from the *Threatened and Priority Flora list for Western Australia*.

Velleia exigua will remain listed as Priority Two under Department of Parks and Wildlife Conservation Codes for Western Australian Flora (M. Smith pers. comm.).

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